

Severing the Snake's Head: The Question of Air Power as
a Political Instrument in the Post-Cold War Security
Environment

A Monograph
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ABSTRACT

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"Severing the Snake's Head: The Question of Air Power as a Political Instrument in the Post-Cold War Security Environment;" by Major Gian P. Gentile, USA, 47 pages.

Is American air power sliding toward irrelevancy in the security environment that the United States confronts as it moves into the twenty-first century? Attitudes of certain senior airmen about the application of air power in the new security environment suggest that it is sliding in that direction. The recent use of air power in Kosovo demonstrates that many airmen understand the application of air power in war and conflict as an impenetrable package of military force that policy should not hinder or constrain once it puts air power into action. Yet contemporary military operations in Somalia and the Balkans strongly suggest that policy will permeate the range of military actions from tactical to strategic. Retired Air Force Major General Charles Link recently commented that in Kosovo the political leadership should have turned the running of the air war over to a "competent" air commander. The actual air commander of the Kosovo campaign, Lieutenant General Michael C. Short, boasted that if left up to him he would have "severed" the head of the snake by launching a quick and overwhelming air attack on Serbian infrastructure. Such an approach, argued the General, would have ended the war much sooner on NATO terms. The attitudes of airmen like Generals Short and Link show that they believe that policy should not restrain or limit the application of air power once it commits it to action. Historical experience and air power theories have contributed mightily to this flawed conception.

Prussian military theorist Carl von Clausewitz noted almost two hundred years ago that policy has a continuing and permeating influence on war. American airmen and other military leaders should heed Clausewitz's most profound insight if they want to maintain the relevancy of their military forces to the security of the nation.

In late October 1999, four months after the end of the North Atlantic Treaty Alliance (NATO) air campaign against Yugoslavia, American Air Force General Michael C. Short testified to the Senate Armed Services Committee about the effectiveness of air power in the Balkans. General Short told the Committee that although American air power was decisive in forcing Yugoslavian President Slobodan Milosevic to accept NATO's cease-fire terms, he and other airmen chafed under the political constraints placed on them. The General boasted that if left up to him he would have "turned the lights out [in Belgrade] the first night" of the bombing campaign by going after the "head of the snake."¹ The General's cryptic style of metaphor-laden language hid an underlying belief held by many airmen about the use of air power in modern war: Once committed to action, policy should not hinder the application of air power in war and conflict.²

For the United States in the post-Cold War security environment the two poles of tactical military action and the accomplishment of political objectives should be linked. Operational art is the link that allows tactics to exist not as an end in itself but as a means to accomplish the aims of policy.³ However, many American airmen understand air power to be a "package" that policy should not constrain once it puts air power into action. Considering the complex security environment that the United States confronts as it moves into the twenty-first century and the attitudes of many senior airmen, is air power a relevant and viable military force?

The recent American air campaign in Kosovo shows that in such operations political considerations will often dictate, sometimes down to excruciating detail, the application of tactical military force. Therefore, can air power be an effective tool of policy in a security environment that will often have political objectives permeating the range of military actions?

Writing in the early nineteenth century, Prussian military theorist Carl von Clausewitz seems to have anticipated the problem of air power as a political instrument in war and conflict. Clausewitz noted that war in the abstract sense of absolute violence would "usurp the place of policy the moment policy had brought it into being." He noted that in such a condition war would then "drive policy out of office and rule by the laws of its own nature, very much like a mine that can explode only in the manner or direction pre-determined by the setting." But Clausewitz concluded that war in the real world was not guided by the logic of theoretical abstractions; instead, political objectives will have a continuous and permeating influence on the conduct of war.⁴ Conceptions of the application of air power almost two hundred years after Clausewitz, however, have treated it like a mine exploding; once policy puts it into action that very policy should no longer affect or guide its direction.

One of the first air power theorists, the Italian Giulio Douhet, contributed mightily to this conception. In his 1921 book, *The Command of the Air*, Douhet argued that war began as a contest of wills between two nations over the conquest of territory.⁵ Unlike Clausewitz who understood the political nature of war, Douhet had no room for policy once war began. Indeed, the idea that policy

could have shaped and influenced the application of air power in war would have been an absurdity to Douhet. War for Douhet was like Clausewitz's metaphor of a mine exploding, its direction and purpose was controlled by the imperative of dropping bombs on enemy cities. Although other air power theorists who followed Douhet accepted the primacy of policy when committing to war, the thought of policy breaking into the air power package once war began was anathema to them.⁶

In addition to air power theory, historical experience reinforced in the minds of many American airmen the notion of air power as a discrete, impregnable package of military action. General William W. Momyer, writing about his experience as an air power commander in three wars, noted in 1978 that airmen naturally balked at the political constraints placed on them when applying air power in Korea and Vietnam. The General argued that unlike World War II, the limited wars of Korea and Vietnam caused resentment among airmen because "it was an ugly and bitter thing to hold a hand voluntarily behind one's back while being beaten or while watching one's friend being beaten."⁷ Like General Short's comments about the restraints placed on him during the Kosovo campaign, General Momyer believed that once policy committed air power to action, it should not hinder its application.

Yet the nature of the post-Cold War security environment demands a nuanced understanding of the relationship between the application of military force and policy. Working against this are certain theories of air power and historical experience that reinforce the conception that air power should only be used in

support of policy as an impregnable, military package. Thus, theory, historical experience, and the recent Kosovo air campaign have combined to solidify the notion of American air power as Clausewitz's metaphor of an "exploding mine." But for air power to remain relevant and useful, the application of it must be seen as a means to a greater end. And sometimes that end may require political limits and restraints placed on the air power "package."

ORIGINS AND EVOLUTION OF AIR POWER THEORY

The notion of discrete uses of air power for limited policy objectives would have seemed preposterous to theorist Giulio Douhet when he wrote about air power after World War I. The Great War proved to Douhet the "total" nature of modern warfare. Total war involved major industrialized nation-states using all of their resources--military, economic, and industrial--to defeat their respective enemy. Unlike previous wars, Douhet argued that total wars of the future would involve the civilian populations on a massive scale. Since all the resources of the state were directed toward the war effort, the people who worked in factories producing war material, for example, naturally became linked to the fighting. Douhet observed that the early use of air power during World War I had brought about the first limited attacks by belligerent states on the populations and factories of enemy cities. The capability of airplanes to drop bombs on enemy cities proved to the Italian theorist that not only would the soldier suffer death and destruction but also the civilian population far removed from the front lines.

The airplane's ability to attack directly the enemy's cities had a substantial

affect on Douhet's emerging theory of air power. Douhet argued that advances in ground firepower like artillery had proven in World War I that offensive ground operations could no longer bring about decision in war. The Italian concluded that at least in ground battle the defensive had become the predominant form of war. It was the airplane--more generally air power--that could bring back decision in war through overwhelming offensive action from the sky, boasted Douhet. War between industrialized states had indeed become total for Douhet because the airplane could fly over the front lines and directly attack the civilian population, thus producing a decision.⁸

Douhet agreed with Clausewitz that war was not fought as an end in itself but to support a political objective for the nation-state. But once the nation went to war against another, and due to the total nature of war where each nation fought to the death, the idea of policy intruding or limiting the conduct of the air war would have seemed deviant to Douhet. The fundamental premise behind Douhet's theory of air power was to attack enemy cities with complete surprise, if possible, and with overwhelming amounts of airplanes dropping bombs on enemy cities. Having done that, Douhet believed, the enemy nation's will would have to break.⁹ To tamper with the force of bombers sent to attack enemy cities, to limit their attack to certain objectives, was illogical to Douhet. For the Italian, once the decision was made to fight total war, air power had to be left alone to accomplish its overriding objective: victory.¹⁰

American airmen were aware of Douhet's theory. As early as 1923 a translation of *The Command of the Air* was being circulated at the Air Service

Headquarters. In 1933 the Air Corps Tactical School (ACTS) at Maxwell Field Alabama maintained copies of Douhet's work. It is debatable how much direct influence Douhet had on the development of American air power theory in the 1930s. Some analysts have argued that zealots of American air power like William Mitchell had greater influence on American thinking on strategic bombing than Douhet. If nothing else, however, Douhet's book and his other writings gave a literary comprehensiveness to the ideas that were being mulled over by American airmen.¹¹

Air Officers at ACTS understood Douhet's argument in *The Command of the Air* that there were two general groups of targets to attack in enemy cities: vital industry and the civilian population.¹² By the late 1930s, American airmen had honed a theory of strategic bombing that sought to attack only one general set of targets put forth by Douhet, the vital centers of enemy industry. Although American airmen like ACTS instructors Muir Fairchild and Haywood Hansell noted that there could be a time in war when it would be appropriate to attack the enemy's population, they constructed an air power theory around the notion of an enemy state as an interconnected system of systems.¹³

The way to defeat an enemy in total war was to attack key elements of the enemy's "national economic structure," argued American airmen. The components of the enemy's industrial structure consisted of target sets such as transportation facilities, munitions factories, steel production, etc. Once those vital centers of war-making capacity were attacked and destroyed, American airmen believed that the will of the people would almost certainly have to

collapse.¹⁴

American airmen agreed with Douhet that after a political decision was made to commit the nation to total war and air power was going to be a primary means of waging it, there should be no restrictions placed on overwhelming the enemy industrial structure with massive amounts of strategic bombers. Indeed, the first air war plan developed by Haywood Hansell and his fellow officers called for large numbers of American strategic bombers to be a powerful striking package that they hoped would win the war on its own.¹⁵ To allow policy to influence the actions of the strategic bombers once the decision was made to use them was to weaken the very destructive force that American airmen believed would ultimately produce victory for the United States.

In order for strategic bombers to be effective American airmen (and Douhet) stridently preached that air power must be independent from ground and naval power. This idea of independence from the army and the navy became axiomatic among American airmen and other air power theorists of the day.¹⁶ They feared that if air power was tied to supporting ground or naval power it would never be able to reach its full potential of attacking the "heart" of an enemy nation. The issue of independence of the air arm reinforced the notion of air power as an impregnable military force. A few bombers to support an infantry division here, more bombers to support a naval task force on the high seas there, and airmen believed you would suddenly have dissipated a powerful air striking force capable of attacking strategic targets directly and decisively. To airmen, lack of independence would relegate their cherished form of military power to a

supporting role for the army and navy.

Writing on air power theory almost fifty years after American airmen gained independence from the army as a result of their actions in World War II, Colonel John A. Warden III argued in his 1989 book, *The Air Campaign*, that conventional air power could still produce decisive results. Warden was frustrated with Air Force thinking about strategy and theory that had become much less theoretical and much more dogmatic as a result of the Strategic Air Command's (SAC) dominance of the Air Force beginning as far back as the late 1940s. SAC, under the long term leadership of General Curtis E. LeMay, focused the Air Force's effort almost exclusively on fighting a major nuclear war with the Soviet Union.

As an indicator of how SAC had solidified the notion of (nuclear) air power as an untouchable military package, the Single Integrated Operational Plan (the SAC-developed nuclear attack plan for war with the Soviet Union) called for an all-out attack on the Soviet Union by American nuclear forces. In fact a SAC briefer in 1954 argued that after a two hour American nuclear assault, the Soviet Union would be turned into a "smoking, radiating ruin."¹⁷

The frustrating thing to President Dwight D. Eisenhower about SAC's nuclear attack plan was that once he made the political decision to use nuclear forces against the Soviets it was an all or nothing commitment. In other words, because the SIOP had become so complex in its tactical and operational planning, the President had no flexibility to limit or adjust the nuclear attack once it was committed to action. Clausewitz's metaphor of the mine exploding

explains very well SAC's SIOP.¹⁸

John Warden sought to change this dogmatic approach to war-fighting in the American Air Force in the late 1980s. His book, *The Air Campaign*, developed a theory of air power that focused on the operational, non-nuclear--or conventional--level of war. Warden's theory, although different from SAC's emphasis on nuclear war fighting, was still quite similar to the air power theory developed by airmen at Maxwell in the 1930s.¹⁹ In his book and in subsequent writings Warden has argued that conventional air power gives political leadership a highly flexible form of military force.²⁰ A close reading of Warden, however, suggests otherwise. Indeed, Warden argues like Douhet and the Maxwell theorists of the 1930s, that air superiority, or command of the air, in a theater of operations is absolutely essential.²¹ In this sense, anything that restricts or limits an Air Force's ability to gain command of the air is anathema to Warden and his theory.

Another crucial aspect of Warden's theory is the notion of understanding the enemy state as a "system" that is very vulnerable to conventional air power using advanced technology. Warden argues that the enemy "system" is made up of a number of different factors portrayed as concentric rings starting in the center and then working outwards with: political leadership; resources like electricity, oil, and money; infrastructure; the population; and the military forces in the field. This system-of-systems, according to Warden, can be paralyzed with attacks from the air that occur simultaneously and in depth. The result is a severe shock to the enemy "system" which will allow the United States to achieve its political

objectives.²²

Yet even for Warden the idea of interfering with the application of air power once it is committed to "shocking" the enemy system goes against what he considers the fundamental tenets of air power theory. Historical experience has proven to Warden and other airmen the idea of air power as an impregnable military package that works like a mine exploding in all directions.

AIR POWER AND HISTORICAL EXPERIENCE

In World War II, American airmen were able to apply air power against Germany and Japan largely the way their theory had informed them. Using high-flying strategic bombers the AAF attacked the war-making capacity of Germany and Japan by bombing crucial parts of the enemy's industrial system like transportation facilities, electrical power, and oil production. Although at the beginning of the War the AAF started off relatively slowly in their strategic bombing attacks against Germany, by the end of the war in the Pacific American airmen had refined their theory and practice of strategic bombing into a powerful bludgeon against the Japanese home islands.

But maintaining autonomy for strategic air operations, especially in Europe, was an ongoing challenge for airmen. The AAF had to fend off many attempts by ground officers to use strategic bombers in support of ground operations. During the months leading up to the Normandy invasion by the Allies in June 1944, Supreme Commander of Allied Forces in Europe, General Dwight D. Eisenhower, ordered United States Strategic Air Forces commander, General

Carl A. Spaatz, to have his bombers attack German tactical and operational transportation facilities that could support the defense against the invasion. General Spaatz, however, did not agree with the idea of using strategic air power to support ground operations. Once the Allied forces had established a beach-head at Normandy, American airmen were again allowed to attack the war-making capacity of the Germans with their strategic bombers.

In the Pacific the situation was somewhat different than Europe in terms of the autonomy of American strategic air forces. The debacle of Kasserine Pass in 1943 where air power was not under the centralized control of an air commander and the use of strategic air power for tactical purposes in support of the D-Day invasion convinced airmen that against Japan things should be different. In the Pacific, the 20th Air Force, under the command of Major General Curtis LeMay, was not subordinate to General Douglas MacArthur but reported directly to the commanding general of the AAF, General H.H. Arnold in Washington, D.C. This relationship gave General LeMay and his strategic bombers a great deal of independence to conduct strategic bombing in line with the American theory of air power. That theoretical approach, applied in practice over the skies of Japan, proved to airmen what air power could do if left alone and without restraints. The use of the atomic bombs on Hiroshima and Nagasaki on 6 and 9 August respectively, and the subsequent Japanese surrender without a ground invasion was vindication for airmen that the theory they had developed during the inter-war years was valid.²³

In the aftermath of World War II from 1945 to 1950 the airmen used the

World War II experience with strategic bombing to justify their independence from the Army and to garner a larger share of the defense budget. Reports on strategic bombing in World War II by the United States Strategic Bombing Survey helped the airmen in their crusade. One report from the Pacific portion of the USSBS argued that conventional strategic bombing over Japan made the atomic bomb, the Soviet declaration of war, and the threat of a ground invasion unnecessary in forcing Japan to surrender unconditionally.²⁴

To airmen, strategic air power worked in World War II (and especially against Japan since it seemed to have obviated the need for a ground invasion) because it was used as an overwhelming military force against the vital systems of the enemy's war-making capacity. And for the most part, there was little political interference with how the airmen applied strategic air power against Germany and Japan. The historical experience of World War II and its manifestation in the reports of the USSBS, confirmed in the minds of airmen the proper approach to using air power in war.²⁵

If World War II seemed to be the right way to use air power, Korea proved to be a deeply frustrating experience to airmen.²⁶ Instead of being able to apply air power the way they had in World War II, the newly independent American Air Force had political restrictions placed on them by President Harry S. Truman. The limited nature of the war in Korea caused the President to keep the Air Force from launching strategic bombing attacks against what many airmen saw as the real enemy in the war--China and the Soviet Union. Certain airmen advocated directly attacking the war-making capacity of those two countries. If

such an approach worked in World War II, then why not in Korea, they wondered.²⁷ By the war's end in 1953 airmen looked back on their experience believing that the interference of policy into the air power package was an aberration. They subsequently began to prepare for a total war against the Soviet Union using nuclear weapons that they believed after its initiation would be unhindered by policy.²⁸

Yet the next war after Korea that the United States fought was not a total war against the Soviet Union but another limited war like Korea. In Vietnam, American airmen experienced the same kind of frustrations as they did in Korea. From 1965 to 1968 the United States Air Force conducted an air operation that became known as Rolling Thunder. The idea behind Rolling Thunder was to bomb certain targets in North Vietnam that were deemed important to the Vietnamese leadership, then stop for a while and observe the results. If American objectives were not obtained the pressure from bombing was "ratcheted-up" with more intensity. Unfortunately, this escalatory approach of using air power did not force the North Vietnamese to stop their support of the communist insurgency in South Vietnam.

Airmen came to despise Rolling Thunder and the concept of "gradualism" that lay behind it. To air officers, Rolling Thunder was the wrong way to use air power in war for two crucial reasons: 1) it placed limits on the types of targets to bomb; 2) Rolling Thunder did not use air power in a quick, overwhelming fashion.²⁹ But most importantly to airmen, policy--or more specifically, civilian political leaders like Secretary of Defense Robert McNamara and President

Lyndon Johnson--became too involved during Rolling Thunder with the application of air power by choosing tactical targets to bomb in North Vietnam.

In 1972, five years after the end of Rolling Thunder, airmen believed they were applying air power correctly. For a few weeks in December of that year President Richard Nixon authorized the Air Force to bomb key industrial and infrastructure targets centered around the North Vietnamese capital of Hanoi. The goal of what became known as the Linebacker II campaign was to convince the North Vietnamese leadership to come to a diplomatic solution that would allow the United States to withdraw from Vietnam while keeping the South Vietnamese government in place. Shortly after Linebacker II, an agreement was signed between North Vietnam and the United States which allowed America to pull its ground forces out of South Vietnam.

American airmen came to believe that since air power in the Linebacker II campaign was relatively unlimited, it in effect "won" the war for the United States. Further, they believed that if air power would have been applied in the same way back in 1967, the United States could have ended the war much earlier by relying primarily on air power.³⁰

However, historian Mark Clodfelter has cogently argued that air power was effective in 1972 because at that time the targets being hit--the war-making capacity that supported North Vietnamese conventional operations--were vulnerable to air attack. Bombing those same targets in 1967 would not have had the same effect because the North Vietnamese were largely supporting the insurgency in the South and not conducting major conventional operations that

were vulnerable to strategic air attack in 1972.³¹

During the years following America's withdrawal from Vietnam in 1972, the United States Air Force turned into a myth the notion that political interference by President Johnson during Rolling Thunder greatly hindered air power's effectiveness while the Linebacker II campaign "won" the war for the United States because it forced the North Vietnamese back to the bargaining table.³² In the 1980s, many airmen looked back on the Vietnam war and judged it to be a failure at the political level in the application of air power (except of course the Linebacker II campaign). Thus, the American Air Force of the 1980s focused its attention not so much on preparing for limited wars like Vietnam but a major conventional (or nuclear war) with the Soviet Union.³³

But the United States never fought a conventional or nuclear war against the Soviet Union; it instead fought a large-scale conventional war against Iraq in 1991 as the Soviet Union was crumbling and the Cold War was coming to an abrupt end. For the American Air Force the Gulf War fit neatly with its conception of how air power should be applied in war. One could even go as far as saying that it was the "perfect" war for airmen.³⁴ It had one sovereign nation as the aggressor attacking into another, and, in turn, threatening a third sovereign nation. Both the attacked and threatened nation asked for help from the United States which it subsequently provided. And the conditions under which the war was fought fit very well with the airmen's conceptual approach to air power. The Iraqi Army was deployed in open desert and was vulnerable to air attack. The Iraqi infrastructure was also open to attack from the air. Most

importantly for airmen, the tactical and operational battlefields could be relatively isolated from political interference. The Gulf War was the right war at the right time, fought in the right place, and fought in the right way for American airmen. But that perfect type of air war could not be replicated by airmen in a 1999 conflict that was, in its very essence, permeated with political limitations and restraints: Kosovo.

OPERATION ALLIED FORCE : Background, Conditions, and Objectives

Nine years after the Gulf War the United States was leading an air campaign against Yugoslavia and its president, Slobodan Milosevic. The overall aim of NATO and the United States seems to have been to force Milosevic to stop the ethnic cleansing of Albanians in Kosovo and to pull his military forces out of Kosovo. Air power—more specifically American air power—was called on to accomplish that task. Yet in contrast to the Gulf War, Operation ALLIED FORCE, or the Kosovo air campaign, was conducted very differently.³⁵

In the Gulf War, the United States fought for the sovereignty of its allies, Kuwait and Saudi Arabia. But in Kosovo, the United States and NATO believed that they had the right to intervene in the internal affairs of another sovereign nation, Yugoslavia. The U.S. and NATO justified its intervention by arguing that Milosevic's actions in Kosovo were destabilizing the region. Moreover, using air power to force Milosevic to stop his ethnic cleansing of Albanians in Kosovo and to remove his military forces from the region was much more complicated than applying air power in the Gulf War. And if air power could be applied in the Gulf

War with few political restrictions, in Kosovo there were a number of limitations. For instance, it was very difficult to apply air power against Serbian forces in the field because of the mountainous terrain and the ability of the Serbs to hide their military equipment. Also, unlike attacking Iraqi combat equipment in the Kuwaiti desert where there were few civilians, in Kosovo Albanian and Serbian civilians lived throughout the region and airmen had to be especially cautious to avoid bombing them. Also, in the Gulf War where the American led coalition was firmly under the sway of the United States, in Kosovo NATO's overall political authority--one based on consensus of all the NATO nations--often eclipsed the authority of the United States.³⁶

In practice, therefore, during the Kosovo air campaign, NATO's need to maintain political consensus among its member nations restricted the types of targets and target sets that the American-led air campaign could attack. These restrictions and limitations, although from a political standpoint made perfectly good sense, caused tension between American airmen and political leaders over the conduct of the air campaign.

Tension also existed concerning what exactly was the "correct" Serbian center of gravity, or focus of the Kosovo air campaign. In contrast to the Gulf War where there was general agreement on the operational and strategic centers of gravity (although there was disagreement on the priority of attack for those centers of gravity) in Kosovo there was a good deal of disagreement within and between the military and political leadership over whether the focus of the air campaign should be toward strategic targets like Serbian infrastructure or

Serbian forces in the field conducting ethnic cleansing.³⁷

Thus the nature of the problem, both political and military, in Kosovo in the Spring of 1999 made it extremely difficult for American airmen to apply air power the way they wanted to apply it; like a mine exploding, once set off there should be no interference with its action. For American political leaders, conversely, during and after the Kosovo air campaign, the notion of applying the air power package against Yugoslavia like a mine exploding may have made sense purely as a matter of military principle; however, in practice over the skies of Serbia and Kosovo political leaders could not apply air power in such a way.

POLITICAL LEADERS AND POLITICAL LIMITS

When the Clinton Administration first began considering the use of military force to compel the Milosevic regime to halt its disruptive and destabilizing actions in Kosovo as far back as the Fall of 1998, bombing was initially seen as an extension of diplomacy. In other words, the Administration thought that through the threat of air power, Milosevic would give in to United Nations resolutions to bring peace to the region. If negotiations failed with the Serbian leader, then it was hoped that a very limited application of air power, perhaps bombing certain key targets for only a few days, would convince him of the resolve of NATO in carrying out UN resolutions. Former director of European affairs at the National Security Council, Ivo Daalder, remembered that the Administration prior to March 1999 "genuinely believed that [bombing] threats will work, and that it will be sufficient to get Milosevic to agree to the demands set by

the UN Security Council.”³⁸

Responding to continued Serbian aggressive actions in Kosovo and in support of the Rambouillet Accords, in February 1999 NATO again relied on the threat of air power to bring about a diplomatic solution. Even after the failure at Rambouillet to reach an agreement with Milosevic and at the beginning of the NATO air campaign in late March, the Clinton Administration still hoped that bombing could be used as an extension of diplomacy rather than a purely military force to secure military objectives.³⁹

Using air power as an extension of diplomacy, however, would require diplomatic actions and imperatives to determine tactical military action. For example, bombing a given Serbian target may have been relevant only in the effect that it had on signaling an intention to Milosevic, not in a strict military sense. Diplomatic and political leaders understood how air power could be used in this regard. Military leaders, and especially airmen, in theory also knew that military force was sometimes used as an extension of diplomacy. But in practice before and during the air campaign over Kosovo and Yugoslavia, the notion of having diplomatic imperatives permeating the range of air power actions was unsettling to airmen; it went against their notions of the correct way to apply air power.⁴⁰

About a month into the air campaign, it became clear to the Administration that using air power as a diplomatic signaling device would not be enough. The Clinton Administration realized that the air campaign was going to take longer than a few days and it would have to attack targets that were key elements of

Milosevic's military power. In short, soon after the air campaign commenced the Administration and NATO realized that they were going to have to use air power to attack military targets in support of political objectives. Ivo Daalder recalled that as the bombing began on 24 March there was the belief in the Administration that "bombing would either get Milosevic to back off, or get him to the table." Yet Daalder went on to note that by mid April President Clinton understood that what happened in the first month of the war had to be reversed, hence a "new strategy was put into place, the strategy of victory."⁴¹ The air campaign therefore changed from diplomatic signaling into war; albeit a limited war permeated with political restraints and limitations.

Secretary of Defense William Cohen understood the fundamental political nature of the air war over Kosovo. Although he recognized that there was an ideal military approach to the air campaign, the Secretary knew that a purely military solution to the problem in Kosovo would undermine the political goals of the United States and NATO. Secretary Cohen argued that it would have been nice to have the American-led, NATO air forces execute a "classic type of air campaign" where you "hit fast and hard and cripple Milosevic's forces as soon as possible." Yet even though such an approach would have made sense militarily, the Secretary pointed out that an unrestricted air campaign where military leaders picked targets and then bombed them would have broken-up the NATO alliance. And it was the unity of the Alliance in the face of an air war against Milosevic that Cohen rightly understood as crucial to maintain. The "real key to success," argued the Secretary, was the "ability of the Alliance to stick together,

to maintain consensus for seventy-eight days of an air campaign."⁴²

Some military leaders also understood the political nature of the air war over Kosovo. In testimony to the Senate Committee on Armed Services in late October 1999, General Wesley Clark, Supreme Allied Commander Europe (SACEUR) and overall military commander of Operation Allied Force, told the senators that he appreciated General Michael Short's desire to "turn the lights out [in Belgrade] the first night." Yet General Clark also knew that allowing airmen to plan and execute an air campaign the way they wanted to would lead to the break-up of the political alliance that air power was suppose to support.⁴³

There was disagreement between General Clark's understanding of why and how air power was applied in Kosovo with those of airmen like General Short. Many airmen in fact wanted to conduct a "classic" air campaign where air power was applied in an overwhelming, unrestrained way, immediately, and throughout the depth of Serbian infrastructure and military forces. Certainly, the experience of applying air power during the Rolling Thunder campaign in Vietnam was a deeply frustrating thing to airmen. Many senior airmen understandably had strong feelings toward the Vietnam War and how air power was applied because either their blood, or the blood of their peers and subordinates may have been spilt in that most troubling conflict.⁴⁴ In Kosovo, therefore, airmen wanted desperately to avoid such a "gradualistic" approach by carrying out a "classic" air attack that they believed would produce the paralysis or shock of the enemy state thereby bending it to American demands.⁴⁵ In the context of the Kosovo air campaign, however, General Clark noted that such a military approach--like a

mine exploding without interference--was unrealistic. Looking back on the planning process for the air campaign, General Clark told the senators that when the plans were developed "we knew that we weren't going to be allowed to use decisive force. [The political leadership of NATO] made it very clear that they wanted to have their hand on the trigger, so to speak, of every step."⁴⁶

Having political "hands" on the "trigger," however, bothered General Short because it meant that there was limitations placed on air power once it was sent into action. And the General told the senators of the Armed Services Committee that it was in his professional judgment that at the beginning of the campaign his air forces could have halted Serbian ethnic cleansing in Kosovo if NATO had allowed him to go after "the head of the snake...the leadership, the heart of the [Serbian] leadership." The result, according to General Short, would have been to convince Belgrade that they could not continue their present actions under relentless and relatively unrestricted American bombing.⁴⁷

Yet soon after General Short's remarks, Senator Reed of the Committee shrewdly summed up the problems of using air power like a mine exploding in a conflict that was permeated by political restraints. He said:

I understand, General Short, your concern that when we go, we've got to go with both guns blazing, but there always seems to me these political issues [that] crop up. And we've had a dialogue all morning long here, and sometimes it amazes me that people are shocked that politics and political judgments enter into military strategy. I should suspect, and as you've all seen throughout your careers, that [policy] is an integral and inescapable part [of war]."⁴⁸

Senator Reed understood that in certain situations where military force is applied, that very military force needs to be flexible enough to adapt to the

political imperatives driving military action. Many airmen, however, could (or would) not appreciate the nuanced premise behind Senator Reed's explanation to General Short about the need for flexibility when applying military force, especially air power.

THE SVENGALI EFFECT

It was ironic that airmen reacted so viscerally to the political restraints placed on them during the Kosovo air campaign. Pamphlet-like arguments put forward by air power advocates after the Gulf War helped create in the minds of political leaders the notion that air power was the most flexible and desirable form of military power to use in support of policy objectives. Using the Gulf War as mantra, many airmen crusaded like Billy Mitchell in the 1930s for the purported revolutionary aspect of air power and its promise to transform war into a cheaper and less bloody endeavor.

In an influential 1993 essay that informed the thinking of many senior airmen, serving air force officer David A. Deptula argued in "Parallel Warfare: What is It? Where did It Come From? Why is It Important?" that the use of air power in the Gulf War was revolutionary. Deptula believed that the use of precision guided munitions combined with stealth technology made the application of strategic air power against Iraq fundamentally different from any of the previous wars or conflicts where air power was applied. To demonstrate further contrast with the use of air power in the Gulf War to past wars, he posited that traditionally wars had been premised on either the need to annihilate or to exhaust the enemy.

Now, according to the airman, because of the revolutionary advances in air power proven in the Gulf War, the United States no longer needed to exhaust or annihilate the enemy: it could "control" the enemy through air power.⁴⁹

Deptula then argued that whereas traditionally wars of attrition and annihilation were premised on destruction of enemy people and material, "control" in "parallel warfare" was based on the notion of destruction as only one of air power's capabilities. In other words, instead of dropping bombs to achieve some level of physical destruction, controlling the enemy through air power meant that things were destroyed only to achieve a certain effect on a given enemy "system." By using air power to control the enemy state through effects-based targeting, Deptula believed that the enemy could be shocked into accepting American demands. Taking his argument to its logical extreme, Deptula professed that the ultimate "application of parallel war would involve no destructive weapons at all—effects are its objects, not destruction."⁵⁰

In a very recent article on the future of air power Colonel John A. Warden, who devised the conceptual underpinnings for the air war plan against Iraq (Deptula was an assistant to Warden during the development of "Instant Thunder"), agreed with Deptula's themes. Warden argued that air power as it emerged from the Gulf War was a revolutionary form of military power. He also claimed like Deptula that due to advances in technology air power can be used to "control" an enemy nation by forcing key systems like leadership and infrastructure into paralysis. The result is an enemy who is compelled to accept American demands. Moreover, by controlling the enemy nation through the use

of advanced technologies war becomes frictionless and predictable.⁵¹

To civilian, political leaders the arguments of Deptula and Warden surely were (and are) seductive. What could be more appealing than the notion of a military force which could be used in support of policy objectives without an emphasis on destruction and the resultant casualties, both friendly and enemy? And the idea about "control" replacing exhaustion and annihilation was certainly of special appeal to political leaders.

Unfortunately, however, political leaders and airmen seem to have developed a very different understanding of the meaning of "control" as it relates to air power. By its nature air power appears to civilian leaders to be a military force that can be quickly set into action, responsive to political changes when in action, and relatively cheap in monetary costs and human casualties. For example, an airplane carrying bombs can in theory be launched by a telephone call from a political leader and even recalled by another telephone call on its way to the target. Applying ground power, conversely, is a much more messy business. Once ground power is put into action, it does not appear to be as responsive as an airplane carrying bombs. Thus, by using terms like "control" Deptula and Warden have created in the minds of American political leaders the notion that if you want to keep control over a military force in support of policy objectives, air power is probably the most desirable form. Testifying to congress in April 1999, former Commandant of the Marine War College, General Paul Van Riper, noted that the writings of certain airmen had caused America's political leadership to listen "to these types of promises for a number of years." They understood the

airmen's prophecies as real "possibilities" which caused them to "mis-analyze what happened in Desert Storm and Bosnia and which laid the current template over Kosovo," argued General Van Riper.⁵²

Even though Deptula and Warden claimed that "controlling" an enemy nation could be brought about by using air power, when it came to applying air power in the Kosovo air campaign, airmen fell back on a premise of the nature of war that Deptula himself had jettisoned: destruction. And to destroy either Serbian infrastructure or military forces in the field airmen believed that they had to be able to operate without any kind of political restraints once the decision was made to commit air power to action. To use the metaphor of a mine exploding, airmen wanted to choose the targets for the mine to destroy, set it off, and then not be bothered with limitations or changes to the natural direction of the mine's explosion. Tension therefore occurred between the very political nature of the NATO air campaign that permeated the tactical use of air power against Serbia and the way in which airmen wanted to conduct that air campaign.

SEVERING THE SNAKE'S HEAD: THE TYRANNY OF AIR POWER DOGMA

On 28 April 1999, a month into the bombing campaign, Major General Charles D. Link, who commanded the Third Air Force in England and had been the Commandant of the Air Command and Staff College, vetted his frustration to the House Armed Services Committee about the political constraints placed on airmen flying over Serbia and Kosovo. General Link believed that once the political decision was made to use air power against Serbia the conduct of

operations should be turned over "to a competent air commander as we did in the Gulf War." Indicting the Clinton Administration for a Vietnam style of "gradualism" in the use of air power, General Link railed against the selection of targets in Serbia and Kosovo by "a committee of 19." None of those committee members, cried General Link, possessed "any particular competence with regard to air campaigns. The military airmen involved in Operation Allied Force have been relegated to simply servicing targets."⁵³

The General went on to judge what he believed to be the flaw of the Clinton Administration's handling of the war. What should have happened, General Link told the congressmen, was for the National Command Authority to state explicitly the political objectives for the campaign, and then allow the military leaders--namely airmen--to develop military objectives to support political goals. General Link argued that the appropriate military objective for the Kosovo air campaign was the destruction "of Serbia's capacity to wage war on its people and its neighbors." But because of "the imprecise or tentative approach imposed on the military commander by NATO's 19 political leaders," the advantages of America's superior technology in air power had been "squandered," argued General Link.⁵⁴

In response to the General's remarks, and accurately reflecting the tension between a political leader's understanding of the nature of air power in limited war and those of an airman, Congressman Snyder stated that a fact of life for the Kosovo campaign was that airmen were working for a "political" alliance. Of course it would be wonderful if NATO could simply turn over the running of the

air campaign to military men and then keep their hands off until victory was achieved, but the Congressman pointed out to General Link that the nature of "the board game" was political and airmen had to deal with that fact. General Link retorted in the usual way by complaining that air power's capability had been reduced due to "political constraints" and that the United States had still not "learned how to use [it] appropriately."⁵⁵

One can detect in General Link's statement to the congressmen an arrogance almost coming close to militarism. In fact his statement is subtly reminiscent of the remarks made by the character General Jack D. Ripper in the 1964 movie "Dr. Strangelove" that "war now is too important to be left up to civilians."⁵⁶ Reflecting on the Kosovo bombing operations shortly after its conclusion in the Summer of 1999 and thoroughly frustrated with the level of political interference, General Link cried about the basic "military mistakes imposed by political leadership." The way to fix such problems in future wars would be to "place air campaigns in the hands of an airman commander," boasted the General.⁵⁷ His remarks reflect accurately the thinking of many airmen about air power as a solid package of military force that political restraints should not limit once put into action.

What began as a sophisticated theory of air power developed by Haywood Hansell and Muir Fairchild of ACTS has in fact become a dogmatic approach to applying air power throughout the range of military operations. Although the theory of air power conceived in the 1930s may have been quite appropriate for World War II and total war, or even perhaps nuclear war with the Soviet Union, it

has proven to be highly problematic in limited wars and conflicts.⁵⁸ Air power theory turned into dogma unfortunately forces airmen into a conceptual straight-jacket that prevents them from correctly assessing the effectiveness of their operations against an adversary and in devising innovative ways to use air power in support of policy objectives. The attitudes of airmen toward the Kosovo air campaign supports this conclusion.

Thinking back on the Kosovo air campaign, General Michael Short believed that he knew what made Yugoslavia, and especially President Milosevic, tick; or at least the General thought that he could apply air power on certain targets that would have caused Milosevic and his country to bend to American will. But regardless of the General's reflections on the Kosovo campaign, such an ability required a very sophisticated knowledge of the Serbian adversary and how air power could affect it. General Short commented to an interviewer on a television documentary that the way to sever the "head of the snake," or Serbian leadership, was to conduct a "classic air campaign." He roared: "The lights are going out, the bridges are coming down, and the military headquarters are going to be blown up." By executing an air campaign in such a way General Short argued that the war over Kosovo would have ended much sooner than it did.⁵⁹

But what makes General Short, or other airmen for that matter, experts at an enemy nation's infrastructure, economic base, or leadership system? American airmen are flyers, not experts in industrial economies or infrastructure. They are trained to fly airplanes and to drop bombs on targets. However, the targets that General Short wanted to attack were economic, industrial, and behavioral in

nature. Even though the Air Force uses a wide range of intelligence assets to help with target selection, American airmen are not really experts at the target systems they often recommend bombing, but the comments made by General Short strongly imply that they are.⁶⁰

General Short appears to have been influenced by the writings of airmen like John Warden and David Deptula. Indeed, Warden's "five-ring" enemy-as-system-model has tended to be treated as dogma by many practicing airmen. General Short's lamenting comments on what he judged to be the "proper" target sets for NATO to have bombed are identical to Warden's model.⁶¹ General Short, either *knowingly or unknowingly*, took Warden's model and arbitrarily applied it to his assessment of what would have worked against Yugoslavia.⁶²

On the same television documentary that General Short appeared, Ivo Daalder harshly criticized the General for "hubris to suggest that he knew the right strategy when others didn't." Daalder asked: "How does [General Short] know what makes Mr. Milosevic tick, and how does he know at what point he would have caved in? He doesn't even know why Milosevic caved in the end."⁶³ Daalder's biting critique of the General accurately portrays the attitude of airmen toward determining the "proper" targets to bomb when applying air power.

Flawed notions of history have reinforced this tendency among airmen. After the Korean and Vietnam wars airmen judged that to limit air power by political restraints was to reduce its effectiveness and keep it from achieving a decision.⁶⁴ When railing against political interference with air operations, images of President Johnson and Secretary of Defense Robert McNamara selecting

bombing targets from the oval office were conjured up to show the improper way to conduct an air campaign. Linebacker II in 1972 was the exception and airmen in the 1980s turned that campaign into a mythical representation of how to fight an air war.

By the early 1990s the Gulf War had replaced Linebacker II as the correct way to use air power in the minds of airmen. Indeed, when lambasting the Clinton Administration for the conduct of the Kosovo air campaign, General Link boasted that "in the Gulf War modern air power created the conditions that gave Coalition land forces an overwhelming advantage...[In Kosovo] instead of turning to a competent air commander, as we did in the Gulf War, targets are being selected" by a group of political leaders who do not possess the competence to conduct an air campaign.⁶⁵ General Link's notion of air power in the Gulf War sidesteps the fact that even in the Gulf War there were political limits placed on air operations, especially over Baghdad after the Al Firdos bunker holding civilians was bombed. Moreover, the Gulf War was fought under very different conditions where the tactical and operational battlefields could be isolated and military forces could attack targets with relatively few political limitations or restraints. The mistaken American bombing of the Chinese Embassy during the Kosovo air war further demonstrates the problems of using air power against a complex, urban environment where targets are not easily determined. Yet to airmen who believe that air power should be applied as an impenetrable package, the Gulf War becomes the good war and the Kosovo air campaign the bad war.

To be blunt, airmen like Generals Short and Link are most happy when they can fly airplanes and drop bombs in their own isolated, tactical world. In a sequestered, tactical battlefield where a military leader is not bothered by political factors, a mine can be placed on the ground and set off; the only concern or consideration is the tactical effect of the mine exploding. So too with the perception of American air power that has emerged out of the Gulf War and Kosovo. When General Short gave praise to air operations over Kosovo, he gave it to his "kids" who were operating at the tactical level of flying airplanes and dropping bombs: "I can not emphasize strongly enough how well this was done at the tactical level of war...Air power brought Milosevic to the table, and it was made possible by the men and women at the tactical level."⁶⁶ But General Short never followed-up on these remarks with an explanation of if air power was so successful at the tactical level then why was it, according to him, so problematic at the operational and strategic levels of war.

Yet it is worth considering the broad range of power and influence (diplomatic, information, economic, and military), to include air power, that NATO brought to bear against Yugoslavia.⁶⁷ Perhaps air power as a part of this greater strategy was effective at the operational and strategic levels of war. To be sure the conclusion of the air campaign against Yugoslavia was not clean and precise as was the surrender of Germany and Japan in 1945. Yet in an age of limited wars, can there ever be such decisive victories as in World War II? Even the Gulf War, which many airmen continue to praise as the right way to apply air power, did not end in a clear victory or decision for the Coalition. Saddam Hussein is

still in power and has a substantial and effective military to support him. In the overall context of the situation that presented itself to the United States and NATO in late Winter 1999, the guiding strategy in which air power was applied may have been the best and most reasonable approach possible given Clausewitz's prescient insight almost two hundred years ago that policy will always permeate military actions in war.⁶⁸

Other military leaders reflecting on the Kosovo campaign seem to have understood this basic but profound insight in an age of limited wars. General Clark was asked the question, "Would you have liked a downtown blitz to be one of the options [for the air campaign]?" Appreciating the desires of his subordinate, General Short, to conduct a "classic style" air campaign but also shrewdly knowing the political situation that confronted him, General Clark responded:

Any time you cross the boundary to using force, it makes sense to escalate the force as rapidly as possible to be as decisive as possible. On the other hand, we never thought during the campaign, and I would not have thought before that, that it made sense to shatter NATO in order to drop a few more bombs on the target. So it was a matter of what the political climate of opinion would accept.⁶⁹

Agreeing with General Clark about the political imperative to maintain the cohesion of the Alliance even if it meant placing restraints on the bombing campaign, General Klaus Nauman, NATO's military committee chairman, argued that "the cohesion of the Alliance and the ability of this Alliance to stick together to maintain consensus...that was the real key to success."⁷⁰ Yet for General Short, success could only be defined at the tactical level of war where his "kids" were flying airplanes and dropping bombs and where he himself was seemingly

oblivious to the higher political imperatives operating in the campaign.

Commenting on the problem of linking military actions at the tactical level to higher political goals, foreign policy and military analyst Anthony H. Cordesman, pointed out that current American military thinking, especially that of airmen, operates in a "political vacuum." He went on to note that "key doctrinal documents concentrate on fighting a large, exposed, conventional opponent like Iraq" in the Gulf War. Yet while there certainly is a need to have the capability to fight such wars, the Kosovo experience demonstrates that there will be other times when military force is applied, albeit with greater political restraints and limitations. Facing this reality should cause many American airmen to accept the fact, as Cordesman emphasizes, that "war is an extension of politics."⁷¹

CONCLUSION: The Past as Prologue

The attitudes of airmen toward the application of air power in war and conflict matter because they can affect the future force structure and policy of the American military. Prior to and after the Kosovo air campaign airmen argued stridently for reorganizing the defense department around air power. More specifically, airmen were calling for a reduction in spending for the Army and Navy and a large increase for the Air Force. The conceptual approach that underpins the airmen's argument for restructuring the defense department is the notion of "Halt Phase Strategy" which posits that air power can halt an enemy aggressor much earlier in its attack than at any other time in history.⁷² Yet an inherent part of applying "Halt" is the implicit belief that once committed to action to stop the enemy attacker, air power will be unrestrained in its tactical and

operational application. If Kosovo teaches us anything, however, it is that the security environment that confronts the American military today and tomorrow is one where political restraints and limitations are extant. In such an environment air power, as conceived by many airmen, seems to be fading toward irrelevancy.

Unfortunately for the present and the future, current American Air Force doctrine is heavily premised on "Halt Strategy." According to Air Force Doctrine Document 1 (AFDD-1), in previous wars air power was used to hold off attacking forces until ground power could be built-up and then launch the decisive blow against the enemy. Now, states AFDD-1, air power can stop the attacking force well before ground forces are organized and deployed, and, air power can even produce a decision on its own. Although it acknowledges up front that "war is an instrument of national policy," the overriding concept throughout AFDD-1 is that air power should be applied quickly and with overwhelming force once committed to action. Implicit in the Air Force's basic doctrine is that for air power to be decisive it should not be hindered or restrained.⁷³

Proponents of air power have used the Air Force's basic doctrine and the more detailed arguments behind "Halt Phase Strategy" to call for a defense establishment structured fundamentally around the Air Force and air power. The Air Force was smarting after the 1997 Quadrennial Defense Review (QDR) that recommended a substantial reduction in Air Force funding. Countering the QDR recommendations at a defense conference in 1998 on the future of American defense organization, General Link argued that adopting "Halt Strategy" as military policy would be more efficient economically and less costly in national

blood and treasure. A supporter of General Link and the Air Force, military analyst Rebecca Grant, claimed that rather than accepting the Army's premise of war on large numbers of casualties, defense policy should be based on "Halt Strategy" which would greatly lower the number of casualties in war.⁷⁴

And as the next QDR approaches proponents of air power continue the crusade for a defense establishment structured around their conception of war and the application of military force.⁷⁵ Indeed, airmen will undoubtedly judge the Kosovo air campaign to be successful based on a simplistic, mono-causal explanation: since lots of bombs were dropped on Serbia and Kosovo it was those bombs that forced Milosevic to accept NATO demands. Too, airmen will certainly argue, counterfactually (just like they did after the Vietnam War), that *if* air power had been applied the way they wanted in Kosovo, the war would have ended much sooner than it did.

Yet that conception of air power—like Clausewitz's mine exploding—seems to be more and more anachronistic and increasingly irrelevant in today and tomorrow's security environment. The application of military force must support the higher goals of policy. If military leaders continue to try to create an artificial security environment that fits their desires for force structure and doctrine, they have not served the nation by providing viable and realistic options of military power to policy makers. Airmen (and all military leaders) should heed Clausewitz's most profound maxim almost two hundred years ago that politics and policy will permeate war and conflict. Military leaders who fail to operationalize this maxim are pushing themselves and their services toward

irrelevancy.

¹ Testimony by Lieutenant General Michael C. Short to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo," 21 October 1999 (CIS, Congressional Universe, www.lexis-nexis.com/CIS; accessed on 5 January 2000).

² For an example of this type of thinking by air officers see, William W. Momyer, *Air Power in Three Wars (WWII, Korea, Vietnam)* (Washington, D.C.: USGPO, 1978).

³ A more detailed and sophisticated explanation of operational art is James J. Schneider, *The Structure of Strategic Revolution: Total War and the Roots of the Soviet Warfare State* (Novato: Presidio Press, 1994), 51.

⁴ Carl Von Clausewitz, *On War* (Edited and Translated by Michael Howard and Peter Paret) (Princeton: Princeton University Press, 1984), 87.

⁵ Giulio Douhet, *The Command of the Air*, Translated by Dino Ferrari, 1942, New Imprint by the Office of Air Force History (Washington, D.C.: USGPO, 1983), 8.

⁶ It should be pointed out that not only airmen have treated the application of military force as an impenetrable package. For example, General of the Army Douglas MacArthur during the first months of the Korean War wanted to use atomic weapons against Chinese infrastructure that was supporting Chinese forces fighting against the American-led coalition in Korea. However, President Harry S. Truman wanted to keep the war limited to the Korean Peninsula and did not want to bring about a major nuclear confrontation with the Soviet Union over the American use of nuclear weapons against the Chinese or North Koreans. MacArthur was decidedly frustrated with Truman's political interference with what he saw as purely his own military sphere. Hence, ground officers are also prone to treat military action as a package that policy should not hinder once it places it in action.

⁷ Momyer, *Air Power in Three Wars*, 338.

⁸ Douhet, *The Command of the Air*, 13-15; For analyses of Douhet see David MacIsaac, "Voices from the Central Blue: The Air Power Theorists," in *Makers of Modern Strategy*, ed. Peter Paret (Princeton: Princeton University Press, 1986), 624-647; and Philip S. Meilinger, "Giulio Douhet and the Origins of Airpower Theory," in *The Paths of Heaven: The Evolution of Airpower Theory*, ed., Philip S. Meilinger (Maxwell AFB: Air University Press, 1997), 1-40.

⁹ Douhet, *The Command of the Air*, 55-61.

¹⁰ *Ibid.*, 60-61

¹¹ Conrad C. Crane, *Bombs, Cities and Civilians: American Air Power Strategy in World War II* (Lawrence: University Press of Kansas, 1993), 17-18; and Gian P. Gentile, "Advocacy or Assessment: The United States Strategic Bombing Survey of Germany and Japan," Ph.D. diss., Stanford University, 1998, 12; and Gentile, *How Effective is Strategic Bombing? Lessons Learned from World War II to Kosovo*, (New York: New York University Press, forthcoming in December 2000).

¹² Douhet, *The Command of the Air*, 57.

¹³ Gentile, "Advocacy or Assessment?" 14-21; and Tami Davis-Biddle, "British and American Approaches to Strategic Bombing: Their Origins and Implementation in the World War II Combined Bomber Offensive," *Journal of Strategic Studies* (March 1995): 110-113.

¹⁴ Haywood S. Hansell, *The Strategic Air War against Germany and Japan: A Memoir* (Washington, D.C.: USGPO, 1986), 12-13.

¹⁵ Air War Plans Division/1 (AWPD 1), Munitions Requirements of the Army Air Forces, August 1941, File 145.82-1, AFHRA.

¹⁶ William Mitchell, *Winged Defense: The Development and Possibilities of Modern Air Power--Economic and Military*, (first published in 1921) (New York: Kennikat Press, 1971, reprint) 215; for a recent scholarly analysis of Mitchell's and other airmen's crusade for an independent air arm see Mark Coldfelter, "Molding Air Power Convictions: Development and Legacy of William Mitchell's Strategic Thought," in *The Paths of Heaven*, 79-114.

¹⁷ David Alan Rosenberg, "A Smoking Radiating Ruin at the End of Two Hours': Documents on American Plans for Nuclear War with the Soviet Union, 1954-1955," *International Security* 6 (Winter 1981/92): 11 (3-38); on the development of SAC in the 1950s see Walton S. Moody, *Building a Strategic Air Force* (Washington, D.C.: USGPO, 1995); and William S. Borgiasz, *The Strategic Air Command: Evolution and Consolidation of Nuclear Forces, 1945-1955*, (Westport: Praeger, 1996).

¹⁸ David Alan Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945-1960," *International Security* 7 (Spring 1983): 4-8. (3-71)

¹⁹ For a comparison of Warden's thoughts to the air theorists of the late 1930s see Scott D. West "Warden and the Air Corps Tactical School: Deja Vu?" (Maxwell Air Force Base, Alabama: Air University Press, 1999).

²⁰ John A. Warden, III "The New American Security Force," *Air Power Journal* (Fall 1999): 76.

²¹ John A. Warden, III *The Air Campaign: Planning for Combat* (Washington: Brassey's, 1988), 10-15.

²² John A. Warden, III "The Enemy as System," *Air Power Journal* (Spring 1995), 47, 54-55.

²³ David R. Mets, *Master of Air Power: General Carl A. Spaatz* (Novato: Presidio Press, 1988), 308-309;

²⁴ United States Strategic Bombing Survey, Chairman's Office, *Summary Report (Pacific War)* (Washington, D.C.: USGPO, 1947), 26.

²⁵ Gian P. Gentile, "A-Bombs, Budgets, and Morality: Using the Strategic Bombing Survey," *Air Power History* (Spring 1977): 20-32.

²⁶ Conrad C. Crane, *American Air Power Strategy in Korea, 1950-1953*, (University of Kansas Press, 2000); 8-9; and Robert Frank Futrell, *The United States Air Force in Korea, 1950-1953*, (Washington, D.C.: Office of Air Force History, 1983).

²⁷ See for example, Captain Robert H. McDonnell, "Clausewitz and Strategic Bombing," *Air University Quarterly Review*, vol. VI, no.1, (Spring 1953), 51-53.

²⁸ Futrell, *Ideas, Concepts, Doctrine*, 433, 439, 440.

²⁹ Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam* (New York: The Free Press, 1989), i x-xv.

³⁰ *Ibid.*, 205-210.

³¹ Ibid.

³² Earl H. Tilford, Jr., *Setup: What the Air Force Did in Vietnam and Why*, (Maxwell AFB: Air University Press, 1991), 288-292, 294.

³³ On Air Force thinking in the 1980s and its precedents see Carl H. Builder, *The Icarus Syndrome: The Role of Air Power Theory in the Evolution and Fate of the U.S. Air Force*, New Brunswick: Transaction Publishers, 1994).

³⁴ For this kind thinking among air officers see Lieutenant General Glenn A. Kent (Ret.), "The Relevance of High-Intensity Operations," in *The Future of Air Power in the Aftermath of the Gulf War* ed., Richard H. Shultz, Jr., and Robert L. Pfaltzgraff, Jr., (Maxwell Air Force Base, Alabama: Air University Press, 1992): 127-138.

³⁵ R.W. Apple, "A Fresh Set of U.S. Goals," *New York Times*, 25 March 1999.

³⁶ Anthony H. Cordesman, "The Lessons and Non-Lessons of the Air and Missile War in Kosovo," (revised) 20 July 1999 (<http://www.csis.org>), 12-14.

³⁷ On centers of gravity during the Kosovo operation see, Brantley O. Smith, "On Kosovo," *United States Naval Institute Proceedings* (January 2000) (accessed on Pro-Quest, 9 February 2000), 1-4.

³⁸ Interview Transcripts of Ivo Daalder for the "Frontline" television documentary "War in Europe," (hereafter referred to as "Frontline Interview") (<http://www.pbs.org>; accessed on 3 March 2000).

³⁹ Barton Gellman, "Allies Facing the Limits of Air Power," *Washington Post*, 28 March 1999.

⁴⁰ Conrad C. Crane, "From Korea to Kosovo: Matching Expectations and Capabilities of American Airpower in Limited War," forthcoming in *Kosovo's Cleansing, Combat and Civic Reconstruction: Western and Balkan Conversations about the Hieroglyphics of Human Misery*, ed., William J. Buckley (An Arbor: Eerdman's Press).

⁴¹ Frontline Interview of Ivo Daalder; Eric Schmitt and Michael R. Gordon, "Shift in Targets Lets NATO Jets Tip the Balance," *New York Times*, 5 June 1999.

⁴² Frontline Interview of William S. Cohen; also see Cohen's and Chairman of the Joint Chiefs of Staff General Hugh H. Shelton's prepared statement "Joint Statement on the Kosovo After Action Review" to the Senate Armed Services Committee, 14 October 2000 (<http://www.defenselink.mil>; accessed on 5 January 2000).

⁴³ Testimony by General Wesley Clark to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo, 21 October 1999" Also see General Clark's comments on "Frontline Interview," and Michael Ignatief "The Virtual Commander: How NATO Invented a New Kind of War," *The New Yorker*, 2 August 1999, 32-33; and Ignatief, *Virtual War: Kosovo and Beyond* (New York: Metropolitan Books, 2000).

⁴⁴ Richard J. Newman, "Vietnam's Forgotten Lessons," *U.S. News & World Report*, 1 May 2000: 31-32.

⁴⁵ On the theory of parallel warfare see Warden, "The Enemy as System."

⁴⁶ Testimony by General Wesley Clark to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo," 21 October 1999; also see General Wesley K. Clark, "The United States and NATO: The Way Ahead," *Parameters* 29 (Winter 1999-2000): 7-9.

⁴⁷ Testimony by General Short to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo," 21 October 1999.

⁴⁸ Senator Reed's statement in *Ibid.*

⁴⁹ David A. Deptula, "Parallel Warfare: What is It? Where did It Come From, Why is It Important?" in *The Eagle in the Desert: Looking Back on U.S. Involvement in the Gulf War*, ed., William Head and Earl H. Tilford, Jr., (Westport: Praeger, 1996), 130, 146-148.

⁵⁰ *Ibid.*, 149-152; For a similar argument to Deptula's that uses the same theoretical base see Daniel T. Kuehl, "Thunder and Storm: Strategic Air Operations in the Gulf War," in *Ibid.*, 111-126.

⁵¹ John A. Warden, III "The New American Security Force," *Air Power Journal* 13 (Fall 1999): 75, 86-88; for an insightful critique of the arguments of Warden and Deptula see Earl H. Tilford, Jr. "Operation Allied Force and the Role of Air Power," *Parameters* 29 (Winter 1999-2000): 24-38.

⁵² Testimony of Lieutenant General Paul Van Riper to the House Armed Services Committee, "United States and NATO Military Operations Against the Federal Republic of Yugoslavia," 28 April 1999 (<http://www.lexis-nexis.com/cis>; accessed on 10 February 2000)

⁵³ Testimony by General Link to the House Armed Services Committee, "United States and NATO Military Operations Against the Federal Republic of Yugoslavia," 28 April 1999.

⁵⁴ *Ibid.*; for another criticism of the Clinton Administration's conduct of the air campaign over Kosovo see Christopher Layne and Benjamin Schwarz "For the Record," *The National Interest* (Fall 1999) (accessed on Pro-Quest, 9 February 2000)

⁵⁵ Testimony by General Link to the House Armed Services Committee, "United States and NATO Military Operations Against the Federal Republic of Yugoslavia," 28 April 1999.

⁵⁶ The complete title to the movie is "Dr. Strangelove Or: How I Learned to Stop Worrying and Love the Bomb;" For a scholarly analysis of "Dr. Strangelove" that places it in a historical and cultural setting see Charles Maland "'Dr. Strangelove' (1964): Nightmare Comedy and the Ideology of Liberal Consensus," in *Hollywood as Historian: American Film in Cultural Context*, ed., Peter C. Rallins (Lexington: University of Kentucky Press, 1983): 190-210.

⁵⁷ Charles D. Link "Why Airpower [sic]?" Airpower [sic]--Why Not?" *Deadalus Flyer* (Summer 1999): 8-9.

⁵⁸ On the problems with applying air power in limited wars see Dennis M. Drew, "Air Theory, Air Force, and Low Intensity Conflict: A Short Journey to Confusion," in *The Paths of Heaven*, 327-329.

⁵⁹ "Frontline Interview" of Lieutenant General Michael C. Short.

⁶⁰ Gentile, "Advocacy or Assessment?" 11-13.

⁶¹ John A. Warden, III "The Enemy as System," 47.

⁶² See General Short's testimony to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo," 21 October 1999, and his Frontline Interview.

⁶³ Frontline Interview of Ivo Daalder.

⁶⁴ Clodfelter, *The Limits of Air Power*, 27.

⁶⁵ Testimony by General Link to the House Armed Services Committee, "United States and NATO Military Operations Against the Federal Republic of Yugoslavia," 28 April 1999. For a thoughtful article that explores a "gradualistic" approach to using air power in limited wars see Phillip D. Meilinger, "Gradual Escalation" *Armed Forces Journal International* (October 1999): 18; for an argument that severely criticizes "gradualism" see Franklin C. Spinney "Learning the Lesson We Want to Learn?" *United States Naval Institute Proceedings* (September 1999) (accessed on Pro-Quest on 9 February 2000).

⁶⁶ Testimony by General Short to the Senate Armed Services Committee, "Lessons Learned from Military Operations and Relief Efforts in Kosovo," 21 October 1999.

⁶⁷ Daniel A. Byman and Matthew C. Waxman, "Kosovo and the Great Air Power Debate," *International Security* 24 (Spring 2000): 5-8.

⁶⁸ Meilinger, "Gradual Escalation," 14.

⁶⁹ Frontline Interview of General Clark.

⁷⁰ Frontline Interview of General Klaus Nauman.

⁷¹ Anthony H. Cordesman, "The Lessons and Non-Lessons of the Air and Missile War in Kosovo."

⁷² Earl H. Tilford Jr., "Halt Phase Strategy: New Wines in Old Skins...With Powerpoint," Strategic Studies Institute, (U.S. Army War College), 1-4; also see Tilford, "Operation Allied Force and the Role of Air Power," and Jeffrey Record, "Operation Allied Force: Yet Another Wake-up Call for the Army," in *Parameters* 29 (Winter 1999-2000): 15-23; 24-38.

⁷³ U.S. Air Force, *Air Force Basic Doctrine (Air Force Doctrine Document 1)*, (Headquarters Air Force Doctrine Center: Maxwell Air Force Base, Alabama, 1997), 41-44.

⁷⁴ Tilford, "Halt Phase Strategy: New Wine in Old Skins...With Powerpoint," 1-4, 25.

⁷⁵ On the upcoming QDR see David E. Snodgrass "The QDR: Improve the Process to Improve the Product," *Parameters* 30 (Spring 2000): 57-68.

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